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AVANT-GARDE ARCHITECTURAL DESIGN

AWANGARDOWE PROJEKTOWANIE ARCHITEKTURY

Abstract

Is designing Architecture an impulse or a long process of finding the best solutions? At a time when all stages of construction projects are rushed, the two-year process of creating a design concept for a housing estate by a group of designers working on a voluntary basis seems to be an unusual method of designing Architecture. A method different from what is common, an innovative method – avant-garde. Does the avant-garde design of Architecture, defined in such a context, become the basis for creating avant-garde Architecture? Will a comparison of the design methodology of the Wrocław ‘superoffice’ established in 2011 and the Werkbund operating in 1929 reveal the secret of creating avant-garde Architecture?

Keywords: architecture, residential area, residential complex

Streszczenie

Czy projektowanie architektury to impuls, czy też długotrwały proces dochodzenia do najlepszych rozwiązań? W czasach, kiedy pośpiech związany z wszystkimi etapami realizacji inwestycji budowlanych jest standardem, dwuletnie tworzenie koncepcji projektowej osiedla mieszkaniowego, przez grupę projektantów pracujących społecznie, wydaje się niezwykle metodą projektowania architektury. Metodą odmienną od tego, co powszechne, metodą nowatorską – awangardową. Czy zdefiniowane w takim kontekście awangardowe projektowanie architektury, staje się podstawą tworzenia awangardy architektury? Czy porównanie metodologii projektowania wrocławskiego „superbiura” powołanego w 2011 r. i Werkbundu działającego w 1929 r. pozwoli odkryć tajemnicę tworzenia awangardy architektury?

Słowa kluczowe: Architektura, osiedle mieszkaniowe, zespół mieszkaniowy

1. INTRODUCTION

Residential architecture is sometimes referred to as a “trivial architectural subject”. Residential buildings rarely enter the history of architecture and there are only very few examples of this type of development. However, it is residential buildings that make up much of the fabric of a city and are a permanent part of people’s lives.

The experience of intensive contact with the space of one’s own flat and the inhabited residential complex has become particularly strong in the era of the COVID 19 pandemic. The introduction of remote work and learning in some sectors of the economy and education has meant that suddenly the flat, in addition to its basic functions, also become a place of work and study. In such conditions, Poles have been painfully affected by what European statistics have been presenting for years. The average usable floor space of a Polish flat is one of the lowest in the European Union. Only Bulgarians, Estonians, Lithuanians,

Latvians and Romanians have a smaller housing area¹. An average Pole uses 29.00 m² of living space, the European average is 39.00 m². Additionally, Eurostat data shows that the overcrowding rate of Polish flats is one of the highest in the European Union – more than one flat in three (39.2%) is overcrowded². The average inhabitant of Poland has 1.1 living quarters at their disposal, with the EU average being 1.7. And although a comparison of statistical data such as the number of dwellings per number of households indicates that Poland has had a surplus of housing stock since 2015³ (Table 1.), according to the report “The state of housing in Poland” published by the Ministry of Development in March 2020, the housing deficit at the end of 2019 was 641,000 dwellings⁴. The report “How many dwellings are missing in Poland” published by the Heritage Real Estate Think Tank in November 2018 indicates an even higher number of missing dwellings – *If one were to take the EU average for the main qualitative indicators describing the state of housing as a reference point, one could estimate that even about 2.4 – 3.0 million dwellings are still missing in Poland*⁵.

Table 1. Comparison of number of households to number of dwellings⁶.

Year	Number of households (in millions)	Number of dwellings (in millions)	Surplus (in millions)
2015	13.98	14.12	0.10
2016	14.08	14.27	0.19
2017	14.17	14.44	0.27
2018	14.28	14.61	0.33
2019	14.38	14.81	0.43
2020	14.48	15.01	0.43

¹ Heritage Real Estate Think Tank, *Ile mieszkań brakuje w Polsce? Raport, listopad 2018*, <https://heritagere.pl/wp-content/uploads/2018/12/HRE-TT-RAPORT-ILE-MIESZKAN-BRAKUJE.pdf> (access: 20.06.2022).

² A dwelling is considered overcrowded if a household does not have at its disposal at least: one room per household, one room per couple, one room for each person over 18, one room for two persons of the same sex aged 12–17, one room for each person aged 12–17, one room for each two children under 12. In 2018, the overcrowding rate of Polish flats was 39.2%. Overcrowding was more prevalent in rented housing – both in social and market leases. See: Ministerstwo Rozwoju i Technologii, *Raport o stanie mieszkalnictwa w Polsce*, marzec 2020, <https://www.gov.pl/web/rozwoj-technologie/raport-o-stanie-mieszkalnictwa> (access: 20.06.2022).

³ The report “State of Housing in Poland” published by the Ministry of Development in March 2020 characterizes this situation in the following way: *Despite the fact that the housing stock in Poland is systematically increasing, the housing deficit (understood statistically as the difference between the number of inhabited units and the number of households) remains a significant problem. The Ministry of Development estimates that at the end of 2019 the deficit will amount to 641,000 dwellings. This means that about 4.5% of households in Poland resided dependently*. See: *ibidem*.

⁴ *Ibidem*

⁵ The qualitative indicators cited in the Heritage Real Estate Think Tank report are: usable floor space of an average dwelling, number of people per dwelling, overcrowding and the technical condition of the dwelling – deprivation. Heritage Real Estate Think Tank, *Ile mieszkań brakuje w Polsce?* *op. cit.*

⁶ Own elaboration based on: Ministerstwo Rozwoju i Technologii, *Raport o stanie mieszkalnictwa w Polsce*, *op. cit.*; Heritage Real Estate Think Tank, *Ile mieszkań brakuje w Polsce?* *op. cit.*

The ministerial report draws attention to several extremely important aspects characterizing the general situation of the state of housing:

- increasing vacancy rates,
- the dominance of developer and private projects in the structure of newly built apartments – 97.8%,
- investment demand for housing associated with the relatively high estimated rates of return on rental housing in relation to returns on other assets in which households can invest their money⁷,
- a small number of dwellings built for people with lower incomes – council housing, flats within social housing associations and company flats, accounted for only 2.2% of newly built dwellings in 2019,
- the share of young people (aged 25–34) living together with their parents – 45.1%.

Both reports additionally use the housing deprivation index⁸ to assess Poland's housing stock, illustrating the percentage of the population living in sub-standard dwellings – the ministerial report cites the index of 15.2% referring to 2018 (approx. 2.2 million dwellings), the Heritage Real Estate Think Tank cites a deprivation rate for the Polish housing stock of 9.4% (approximately 1.3 million dwellings).

Therefore, for a large group of Polish residents, small, overcrowded flats, often without balconies or loggias, have almost become a place of imprisonment during the pandemic. Balcony, terrace, home garden has become an object of dreams⁹, and a housing estate square an invaluable place of recreation and relaxation. Extreme restrictions on normal social activities during the pandemic made it clear to all residents how important the social space of a housing complex is.

In the two decades of the 21st century, a relatively large number of flats were built in Poland. New housing complexes have emerged, creating a Housing Architecture. What is this Architecture of recent years? Does it stand a chance of satisfying the needs of residents, which have become extremely evident during the covid restrictions? Jan Mencwel, president of the Warsaw-based association *Miasto Jest Nasze* (City Is Ours), draws attention to the characteristic feature of some of the new complexes:

⁷ Ministerstwo Rozwoju i Technologii, *Raport o stanie mieszkalnictwa w Polsce*, op. cit.

⁸ The housing deprivation indicator illustrates the percentage share of the population living in sub-standard dwellings due to: a leaking roof, damp walls, roof, foundations, rotting door and window frames or floors, no bathtub or shower in the dwelling, no toilet inside the building for the exclusive use of households, a dwelling that is too dark. The Central Statistical Office defines the notion of material deprivation – the impossibility to satisfy needs considered basic in European conditions, due to financial problems – Ministerstwo Rozwoju i Technologii, *Raport o stanie mieszkalnictwa w Polsce*, op. cit.; <https://stat.gov.pl/metainformacje/slownik-pojec/pojecia-stosowane-w-statystyce-publicznej/3603,pojecie.html> (access: 20.06.2022).

⁹ Konrad Płochecki, director of the Polish Association of Developers, describes the new situation on the residential market as follows – *We are now looking for more rooms in the same or slightly larger total area. The hit is a 50m² three-room flat. We have also seen unprecedented demand for large four- and five-room flats. The second interesting trend is the search for private outdoor space, such as a garden, terrace or balcony. Flats with gardens on the ground floor, which previously tended to be priced lower, were particularly valued in the pandemic, but are now disappearing from the offers in the first place.* – C. Kowanda, *Pięćdziesiątki w cenie*, “Tygodnik Polityka”, 4 (3296), 20.01.–26.01.2021, p. 36.

There are often good quality flats in new blocks, but the housing estates are bedroom communities without nurseries, kindergartens, services, shops or access to good public transport. Such places have earned the nickname of ‘meadow housing estates’ because they are built somewhere in the middle of nowhere, among fields, on the outskirts of large cities.¹⁰

As indicated by the research conducted by the Institute for Sustainable Development, in the spatial arrangements of Polish cities, residential development appears practically everywhere, investors/developers try to carry out housing investments regardless of whether the land is prepared for development in terms of infrastructure or not¹¹. The form of development of open areas is described by Barbara Szulczewska as a *patch urbanism* – the built housing estates are adjusted in size and shape to the plots acquired by the investors and completely disregard the spatial context, including the relations with the neighbouring *patch estate*. Linear settlements are also being built – settlements formed as a result of enclosing roads leading out of cities¹². New housing complexes and estates are, as it were, produced on a conveyor belt of developments whose main goal is to maximize profits. The quality of designed housing architecture, especially in terms of the spatial solutions applied, is necessarily relegated to the background¹³.

2. AVANT-GARDE RESIDENTIAL ARCHITECTURE DESIGN – WROCLAW 2011

The Wrocław housing estate New Żerniki is called an unprecedented experiment on the Polish housing market. The creation of the concept for the model housing estate began somewhat by accident. In 2011, the Lower Silesian Chamber of Architects took the initiative to rebuild a kindergarten built as part of the WuWA housing exhibition in Wrocław¹⁴. The kindergarten building was to become the Chamber’s headquarters. During the discussions concerning the details of the reconstruction of the building, conducted by representatives of the Lower Silesian Chamber of Architects with the authorities of the city of Wrocław, the concept of erecting a new, model assumption based on the complex created within the framework of

¹⁰ Idem, *Patomieszkanie*, “Tygodnik Polityka”, 46 (3338), 9.11.–16.11.2021, p. 46.

¹¹ M. Grochowski, *Metropolizacja a kształtowanie ład przestrzennego układów zurbanizowanych*, https://mazowszestudiaregionalne.pl/images/pdf/06/msr_6_grochowski.pdf (access: 20.06.2022).

¹² B. Szulczewska, *Zielone metropolie – punkt widzenia przyrodnika*, [in:] K. Kamieniecki (red.) *Jak zapewnienia rozwoju zrównoważonego teren zurbanizowanych? Metropolie*, Instytut na rzecz Rozwoju, Warszawa 2009.

¹³ Ł. Pancewicz, *Nowa metoda. O osiedlu Nowe Żerniki*, ARCHITEKTURA murator, 23.12.2020, https://architektura.muratorplus.pl/realizacje/nowa-metoda-o-osiedlu-nowe-zerniki-lukasz-panewicz_10865.html (access: 15.06.2022).

¹⁴ WuWA – “Wohnungs- und Werkraumausstellung” – “Housing and Workplace” – A Wrocław Werkbund housing exhibition organised in 1929 on the initiative of the Silesian branch of the Werkbund. The primary objective of the WuWA housing exhibition was to build a housing estate presenting new types of low-cost small and medium-sized flats. – P. Horn, *Sustainable Development in the process of shaping a contemporary housing estate. Ideas, examples*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2019, <http://www.oficyna.pwr.edu.pl/wp-content/media/Pawel-Horn-Zrównoważony-rozwoj-w-procesie-kształtowania-współczesnego-osiedla.-Idee-przykłady.pdf> (access: 15.06.2022).

the 1929 housing exhibition emerged. – The new WuWA2 housing estate. The patronage over the project was taken by the Mayor of Wrocław Rafał Dutkiewicz, and the coordinator of the project was the City Architect Piotr Fokczynski. The city authorities designated a site for future housing development – building land located in the western part of Wrocław, near the City Stadium and the interchange (tram, bus)¹⁵. The location was chosen on the grounds of sustainable development, i.e. close and efficient public transport system. The first meeting opening the cycle of design workshops was held on 20 December 2011. During this meeting, arch. Zbigniew Maćków described the aim of the project –

to design and build a Model Residential Complex meeting the needs of a modern city and its active residents. The proposal is to be an alternative to the ‘assembly-line production’ of flats, a highly standardized, quantitatively insufficient and not always qualitatively satisfactory offer generated by the market. (...) Wrocław Model Residential Complex is to become one of the architectural showpieces of the European Capital of Culture 2016.¹⁶

More than 100 architectural studios from all over Poland applied to participate in the design work of the new model housing estate. In the end, on the basis of a competition conducted by the Lower Silesian branch of SARP, 44 design studios were selected in Wrocław, which worked on the concept of the estate. In 2012, on the basis of workshop studies, the local zoning plan for the area intended for development was adopted. In the same year, the city provided utilities to the area.

Wrocław architects working within the so-called *superoffice* formulated the design guidelines for a model housing estate in two main thematic groups:

1. General, urban planning assumptions:

- public spaces serving residents – integration, recreation,
- essential services – childcare, education, retail, catering,
- security,
- counteracting social exclusion,
- ecology, minimising operating expenses,
- optimisation of communication – interaction with the public transport system,
- new forms of construction organisation,
- public participation.

2. Functional and architectural principles:

- private, semi-private, semi-public, public spaces,
- optimisation of housing structures,
- local material and performance traditions,
- workplace – small areas for professional activities,
- integrated design technologies,
- different forms of housing – large apartment buildings, small multi-family houses, urban villas, an attempt to create a model house.

The urban concept of the estate was the basis for separating individual plots for development, which were sold by the City Hall, which acted as a public *land developer*¹⁷. In the first stage of development of New Żerniki, which in its essence is a new district of the city,

¹⁵ T. Żylski, *Historia miasta*, ARCHITEKTURA murator, 01/2021//316, p. 18

¹⁶ P. Horn, *op. cit.*

¹⁷ Ł. Pancewicz, *op. cit.*, p. 22.

13 residential quarters, 4 co-operatives and a multi-generational house with a kindergarten, flats for seniors and flats for young families were built. The development area is approx. 10 ha. The second phase will cover a total of approx. 40 ha, and further phases are planned for 100 ha with the possibility of increasing it to approx. 300 ha.

3. AVANT-GARDE RESIDENTIAL ARCHITECTURE DESIGN – WROCŁAW 1929

In 1929, the Silesian Branch of the Werkbund initiated the construction of a model housing estate to accompany the housing exhibition “Living and Working Space”.¹⁸ The chairman of the Werkbund¹⁹, Peter Bruckmann, wrote in 1927 that the overriding goal of this organisation was to work with the times, and in the Weimar Republic the spirit of the times called for the construction of cheap housing for the masses.

In the first years after World War I, Breslau faced enormous housing problems. The city with a population of half a million belonged to the most overcrowded German cities. 76,424 people lived in sub-standard conditions. Already in 1919, a number of new housing estates with flats for workers and officials were built on the outskirts of the city: Popowice, Sępólno, Grabiszyn, Tarnogaj, Księżę Małe and the housing estate at Sernicka Street. The construction of the model housing estate, presented together with the housing exhibition, seemed to be an excellent opportunity to present Wrocław’s design, creative and executive potential. The housing estate was built next to the exhibition grounds (in the vicinity of the Centennial Hall) in the area of Zygmunta Wróblewskiego, Tramwajowa, Edwarda Dembowskiego, Zielonego Dębu and Mikołaja Kopernika Streets.

The model housing estate was intended to showcase new types of small and medium-sized flats. The layout of the complex was designed by two architects: Adolf Rading and Heinrich Lauterbach. The design of the housing estate envisaged construction of 37 buildings of varied character – detached single-family houses, terraced houses, multi-family buildings and a housing estate kindergarten. Thirty-two objects were built, presenting 132 flats of various functions and sizes. The completed buildings with their interiors were open to the public for three and a half months. The speed of construction of the estate was impressive – it was built in three months.

¹⁸ There is no reliable information about the earlier planning of the Wrocław exhibition, the choice of architects and the search for a site. What is known, however, is that negotiations with the city authorities lasted from autumn 1927 and encountered many difficulties. Some researchers claim that the initiators of the residential exhibition in Wrocław were young architects from the circle of the Academy of Art. As young adepts in the profession they had difficulties in obtaining large design commissions, the housing exhibition organized under the auspices of the city, subsidized by the parliament could have been an opportunity to “sail wide design waters”. – J. Urbanik, *1929 WUWA 2019. Wrocławska wystawa Werkbundu*, Muzeum Architektury we Wrocławiu, Wrocław 2019, pp. 129–130.

¹⁹ The Werkbund, an organisation established in 1907, brought together German progressive manufacturers, architects and designers working with industry. Its main aim was to improve workmanship and the quality of production. Artists, craftsmen and industrialists were to work together to produce high-quality goods with artistic features. In 1925, the Silesian Branch of Werkbund was established with its seat in Wrocław. – *ibidem*, p. 31.

4. SUMMARY AND FINAL CONCLUSIONS

New Żerniki – a *Wrocław architectural experiment*, widely described in the specialist press and academic publications, raises hopes for a change in thinking about the planning and implementation of housing estates and complexes throughout the country. In the times of hastily designed and implemented housing investments, the formula adopted by the local authorities of deep reflection on what, where and how is to be built in the city seems to be incredibly unique and distinctive.

What was avant-garde, especially in Polish conditions, was the coordination of planning and design works related to the model housing estate New Żerniki carried out by the Wrocław local authorities. It was the city that took the initiative to build a model housing complex, set aside city land for future development and provided the necessary infrastructure.

The method of design work on the New Żerniki residential area was a huge undertaking involving a large group of people – designers, consultants, investors, city authorities patronising and coordinating the project. The innovative formula of design workshops conducted within the framework of the *superoffice* required preparation each time – preparation of drawing concepts, analyses, diagrams, etc., which were the subject to further discussions during the workshops. Designing the New Żerniki estate in an open way with social participation contributed to the creation of a new quality in the social space of the city. It can be described as a distinctive, avant-garde space through its method of design, construction and creation.

The WuWA estate, built for exhibition purposes, was from its inception distinctive, different from what it has been, modern. Its avant-garde character was the basic, original design assumption.

In the author's opinion, the creators of WuWA2 – New Żerniki, wanted to simply design a good housing estate, to create an area of a high quality residential complex. The postulate of modernity and avant-garde was not the first and most important design assumption. New Żerniki became the Polish avant-garde in designing a residential complex as if by the way.

The WuWA estate, which was an inspiration for the designers of New Żerniki and the New Żerniki estate – the so-called WuWA2, are incomparable in the scale of their assumptions. The model estate from 1929 is a residential complex consisting of 32 residential buildings, within which 132 flats were completed. The first stage of New Żerniki consists of 13 residential quarters, 4 housing cooperatives and a multi-generational house with 117 flats.

The connecting element between the two teams seems to be the passion and creative energy of those involved in their design and creation. And perhaps in this passion, in this energy, the secret of creating Avant-garde Architecture is hidden.



III. 1. New Żerniki housing estate, Wrocław, Poland, 2020, the design – super office – over 40 Wrocław architectural studios – panorama of the completed part of the estate. Source: Own elaboration based on Konrad M., *Bez precedensu*, ARCHITEKTURA murator, 01/2021//316, p. 25



III. 2. Model housing estate accompanying the WuWA exhibition, Breslau, Weimar Republic, 1929, designed by a group of 11 Wrocław architects from the Werkbund circle, bird's eye view of the estate. Source: Own elaboration based on Urbanik J., *1929 WUWA 2019. Wrocławska wystawa Werkbundu*, Muzeum Architektury we Wrocławiu, Wrocław 2019. p. 161.

References:

- [1] Grochowski M., *Metropolizacja a kształtowanie ładów przestrzennego układów zurbanizowanych*, MAZOWSZE Studia Regionalne, 2011/6, p. 168, https://mazowszestudiaregionalne.pl/images/pdf/06/msr_6_grochowski.pdf (access 10.06.2022).
- [2] Heritage Real Estate Thin Tank, *Ile mieszkań brakuje w Polsce? Raport, listopad 2018*, <https://heritagere.pl/wp-content/uploads/2018/12/HRE-TT-RAPORT-ILE-MIESZKAŃ-BRAKUJE.pdf> (access: 15.06.2022).
- [3] Horn P., *Zrównoważony Rozwój w procesie kształtowania współczesnego osiedla. Idee, przykłady*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2019, <http://www.oficyna.pwr.edu.pl/wp-content/media/Paweł-Horn-Zrównoważony-rozwój-w-procesie-kształtowania-współczesnego-osiedla.-Idee-przykłady.pdf> (access: 15.06.2022).
- [4] Konrad M., *Bez precedensu*, ARCHITEKTURA murator, 01/2021//316, p. 25
- [5] Kowanda C., *Patomieszkanie*, "Tygodnik Polityka", 46 (3338), 9.11–16.11.2021, p. 46.
- [6] Kowanda C., *Pięćdziesiątki w cenie*, "Tygodnik Polityka", 4 (3296), 20.01–26.01.2021, p. 36.
- [7] Ministerstwo Rozwoju i technologii, *Raport o stanie mieszkalnictwa w Polsce*, marzec 2020, <https://www.gov.pl/web/rozwoj-technologie/raport-o-stanie-mieszkalnictwa> (access: 20.06.2022).
- [8] Pancewicz Ł., *Nowa metoda. O osiedlu Nowe Żerniki*, ARCHITEKTURA murator, 23.12.2020, https://architektura.muratorplus.pl/realizacje/nowa-metoda-o-osiedlu-nowe-zerniki-lukasz-pancewicz_10865.html (access: 15.06.2022).
- [9] Szulczewska B., *Zielone metropolie – punkt widzenia przyrodnika*, [in:] K. Kamieniecki (red.) *Jak zapewnić rozwój zrównoważony terenów zurbanizowanych? Metropolie*, Instytut na Rzecz Ekorozwoju, Warszawa 2009.
- [10] Urbanik J., *1929 WUWA 2019. Wrocławska wystawa Werkbundu*, Muzeum Architektury we Wrocławiu, Wrocław 2019.
- [11] Żylski T., *Historia miejsca*, ARCHITEKTURA murator, 28.07.2017, https://architektura.muratorplus.pl/realizacje/historia-miejsca-tomasz-zylski_7716.html (access: 15.06.2022).

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